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Claims

1. A method for charging of data reaching a network element of a communication network during a data session,

5 the data session comprising a plurality of data flows,
 with each flow being distinguishable by a set of
 flow parameters,

the method comprising the steps of:

 enforcing a charging policy at the network element to
10 be applied to said data, wherein said charging policy
 defines charging rules per flow;

 observing said data reaching said network element and
 detecting at least one flow of data; and

 matching said detected flow of data to an enforced
15 charging policy,

 applying said matching charging policy to said flow,
 thereby generating charging information.

2. A method according to claim 1, further comprising a step
20 of

 forwarding said generated charging information to a
 charging system of the communication network.

3. A method according to claim 1, wherein

25 enforcing is performed upon start-up of the network
 element.

4. A method according to claim 1, wherein

 enforcing is performed upon activation of the data
30 session.

5. A method according to claim 4, wherein

 enforcing is performed dynamically during the life-
 time of the data session.

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6. A method according to claim 1, wherein
upon enforcing said charging policy, data volume
counters and/or time counters are initialized.

5 7. A method according to claim 1, wherein
said data flows are Internet Protocol based packet
data flows, and
said flow parameters comprise at least one of an IP
header field, a transport header field, and an application
10 level information.

8. A method according to claim 1, wherein
said charging policy comprises
at least one flow parameter, and
15 at least one of a charging/accounting type, an
accounting event trigger, a charging metrics, and a
tariffing indication.

9. A method for supplying a network element with a charging
20 policy to be enforced at said network element for charging
of data reaching said network element of a communication
network during a data session,
the method comprising the step of:
- creating a plurality of charging policies,
25 each comprising
at least one flow parameter, and
at least one of a charging/accounting type, an
accounting event trigger, a charging metrics, and a
tariffing indication,
30 - selecting a charging policy based on offered
services and subscriber information, and
- distributing said selected charging policy to at
least one network element.

35 10. A method according to claim 9, wherein

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a charging policy is selected for a type of a network element.

11. A device for charging of data reaching a network
5 element of a communication network during a data session,
the data session comprising a plurality of data flows,
with each flow being distinguishable by a set of
flow parameters,

the system comprising:

10 enforcing means adapted to enforce a charging policy
at the network element to be applied to said data, wherein
said charging policy defines charging rules per flow;

observation means adapted to observe said data
reaching said network element and detecting at least one
15 flow of data; and

matching means adapted to match said detected flow of
data to an enforced charging policy,

application means adapted to apply said matching
charging policy to said flow, and

20 generation means, responsive to said application
means, adapted to generate charging information.

12. A device according to claim 11, further comprising
forwarding means adapted to forward said generated
25 charging information to a charging system of the
communication network.

13. A device according to claim 11, wherein
said enforcing means are responsive to a start-up of
30 the network element to perform the enforcing.

14. A device according to claim 11, wherein
said enforcing means are responsive to activation of
the data session to perform the enforcing.

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15. A device according to claim 14, wherein
said enforcing means are dynamically performing the
enforcing during the life-time of the data session.

5 16. A device according to claim 11, further comprising
initialization means adapted to initialize data volume
counters and/or time counters responsive to enforcing said
charging policy.

10 17. A device according to claim 11, wherein
said data flows are Internet Protocol based packet
data flows, and
said flow parameters comprise at least one of an IP
header field, a transport header field, and an application
15 level information.

18. A device according to claim 11, wherein
said charging policy comprises
at least one flow parameter, and
20 at least one of a charging/accounting type, an
accounting event trigger, a charging metrics, and a
tariffing indication.

19. A device for supplying a network element with a
25 charging policy to be enforced at said network element for
charging of data reaching said network element of a
communication network during a data session,
the device comprising:
- creation means adapted to create a plurality of
30 charging policies,
each comprising
at least one flow parameter, and
at least one of a charging/accounting type, an
accounting event trigger, a charging metrics, and a
35 tariffing indication,

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- selection means adapted to select a charging policy based on offered services and subscriber information, and

- distribution means adapted to distribute said selected charging policy to at least one network element.

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20. A device according to claim 19, wherein

a charging policy is selected for a type of a network element.